What is claimed is:

[1. A method of producing a PDP, the method comprising:

a first step of forming a front cover plate by forming a first electrode and a dielectric glass layer on a front glass substrate then forming a protecting layer of an alkaline earth oxide with one of (100)-face orientation and (110)-face orientation on the dielectric glass layer; and

a second step of forming a back plate by forming a second electrode and a fluorescent substance layer on a back glass substrate then bonding the front cover plate, on which the protecting layer has been formed, with the back plate, and charging a gas medium into a plurality of discharge spaces which are formed between the front cover plate and the back plate, the front cover plate and the back plate facing to each other.]

[2. The method of producing a PDP of claim 1, wherein in the first step, the protecting layer is formed with one of a thermal Chemical Vapor Deposition method and a plasma Chemical Vapor Deposition method by using an alkaline earth organometallic compound and oxygen.]

[3. The method of producing a PDP of claim 2, wherein the alkaline earth organometallic compound used in the first step is one of an alkaline earth metal chelate compound and an alkaline earth cyclopentadienyl compound.]

[4. The method of producing a PDP of claim 3, wherein the alkaline earth organometallic compound used in the first step is one of $M(C_{11}H_{19}O_2)_2$, $M(C_5H_7O_2)_2$, $M(C_5H_5F_3O_2)_2$, and $M(C_5H_5)_2$, wherein M represents one of magnesium, beryllium, calcium, strontium, and barium.]

[5. A method of producing a plasma display panel having a plurality of discharge space cells with a front substrate and a rear substrate and walls separating each cell, each discharge space is addressable by display electrodes to cause the cell to emit light comprising:

depositing a protective layer of an alkaline earth oxide having one of a (100) crystal face orientation and a (110) crystal face orientation extending across a top surface of each cell; and

charging each cell with a discharge gas.]

[6. The plasma display panel method of claim 5 wherein each cell is pressurized to pressure of approximately 500 to 760 Torrs.]

[7. The plasma display panel method of claim 6 wherein each cell is charged with an xenon discharge gas between 10% by volume to approximately 100% by volume.]

[8. The plasma display panel method of claim 7 wherein one of argon, kryptor, helium and neon is mixed with the xenon.]

[9. The plasma display panel method of claim 7 wherein one of argon and krypton is mixed with the xenon in sufficient volume to provide ultraviolet light emission at a wavelength of 173 nm.]

[10. The plasma display panel method of claim 7 wherein two additional discharge gases within the range of 10% to 50% by volume are mixed with the xenon.]

[11. The plasma display panel method of claim 6 wherein a distance between adjacent display electrodes in the same plane is no greater than 0.1 mm.]

[12. The plasma display panel method of claim 5 wherein the protective layer is selected from a group consisting of MgO, BeO, CaO, SrO and BaO.]

[13. The plasma display panel method of claim 5 wherein the protective layer is magnesium oxide with a crystal face orientation of(110).

[14. The plasma display panel method of claim 5, wherein the first substrate includes a dielectric glass layer and the dielectric glass layer is heated to a temperature between 350° C. to 400° C. during the depositing of the protective layer by a thermal chemical vapor deposition.]

[15. The plasma display panel method of claim 5, wherein the front substrate includes a dielectric glass layer and the dielectric glass layer is heated to a temperature between 250° C. to 300° C. during the depositing of the protective layer by a plasma enhanced chemical vapor deposition.]

[16. The plasma display panel method of claim 5, wherein the front substrate includes an upper glass plate and a lower dielectric glass layer, and display electrodes are formed from depositing a conductive paste on the upper glass plate, the paste is then baked to harden it and subsequently is sandwiched with the lower dielectric glass layer.]

[17. The plasma display panel method of claim 5, wherein the protective layer is deposited by transferring a paste of the alkaline earth oxide to the front substrate and baking it.]

[18. The plasma display panel method of claim 17, wherein the paste is a magnesium salt with a plate-shaped crystal structure.]

[19. The plasma display panel method of claim 18, wherein the paste is magnesium oxalate formed by dissolving ammonium oxalate in a magnesium chloride aqueous solution and heating it to form the plate-shaped crystal structure.]

[20. The plasma display panel method of claim 5, wherein the depositing of the protective layer is made by evaporating the alkaline earth oxide with an ion/electron beam in a vacuum.]

[21. A method of producing a plasma display panel having a plurality of discharge space cells, each discharge space cell is addressable by display electrodes to cause the cells to emit light, comprising:

depositing a protective layer of an alkaline earth compound selected from the group consisting of $M(C_{11}H_{19}O_2)_2$, $M(C_5H_7O_2)_2$, $M(C_5H_5F_3O_2)_2$, and $M(C_5H_5)_2$, wherein M represents one of magnesium, beryllium, calcium, strontium, and barium, the protective layer having one of a (100) crystal-face orientation and a (110) crystal-face orientation extending across a surface of each cell; and

charging each cell with a discharge gas.]

[22. The plasma display method of claim 21, wherein the protective layer is deposited by one of a thermal chemical vapor deposition step and a plasma enhanced chemical vapor deposition step.]

[23. The plasma display method of claim 22, wherein the discharge gas includes at least 10% by volume Xe and is at a pressure of at least 500 Torr.]

[24. The plasma display method of claim 23, wherein the discharge gas includes one of Ar and Kr.]

[25. The plasma display method of claim 23 wherein the discharge gas is selected from a group consisting of Ar-He-Xe, Ar-He-Xe, Kr-Ne-Xe, and Kr-He-Xe and the amount of Kr, Ar, He, or Ne should be in the range of 10% to 50% by volume.]

[26. The plasma display method of claim 23, wherein the alkaline earth compound is selected from the croup consisting of magnesium dipivaloyl methane, magnesium acetylacetone, magnesium trifluoroacetylacetone, and cyclopentadienyl.]

[27. A method of producing a plasma display panel having a plurality of discharge space cells, each discharge space cell is addressable by display electrodes to cause the cell to emit light, comprising:

depositing a protective layer selected from the group consisting of magnesium dipivaloyl methane, magne-

sium acetylacetone, magnesium trifluoroacetylacetone, and cyclopentadienyl magnesium across a surface of each cell to provide one of a (100) crystal-face orientation and a (110) crystal-face orientation; and

charging each cell with a discharge gas including at least 10% by volume Xe at a pressure of at least 500 Torr.]

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28. An apparatus for forming a protecting layer in a PDP comprising:

an electron gun for evaporating an alkaline earth oxide and forming a protecting layer consisting of the alkaline earth oxide with (110)-face orientation on a surface of a dielectric layer of a glass substrate.

29. The apparatus for forming a protective layer in a PDP of Claim 28, wherein the alkaline earth oxide is magnesium oxide (MgO).

30. A CVD apparatus for forming a protecting layer in a PDP comprising:

a bubbler for evaporating a metal chelate of alkaline earth oxide and transferring the metal chelate to a reaction container; and

an oxygen supplier for supplying oxygen gas (O_2) to said reaction container,

wherein the metal chelate reacts with the supplied oxygen in said reaction container and a protecting layer, including the alkaline earth oxide with a (100)-face orientation, is formed on a surface of a dielectric layer of a glass substrate.

31. The CVD apparatus for forming a protecting layer in a PDP of Claim 30, wherein said reaction container is heated with 350 to 400° C.

32. A CVD apparatus for forming a protecting layer in a PDP comprising:

a bubbler for evaporating a metal chelate of alkaline earth oxide and transferring the metal chelate to a reaction container;

an oxygen supplier for supplying oxygen gas (O_2) as a reaction gas to said reaction container; and

a high frequency power for generating plasma in said reaction container by applying a high-frequency electric field,

wherein the metal chelate reacts with the supplied oxygen in said reaction container and a protecting layer, including the alkaline earth oxide with a (100)-face orientation, is formed on a surface of a dielectric layer of a glass substrate.

33. The CVD apparatus for forming a protecting layer in a PDP of Claim 32, wherein said reaction container is heated with temperatures ranging from 250 to 300° C.

34. The CVD apparatus used for forming a protecting layer in a PDP of Claim 33, wherein the pressure in said reaction container is reduced to about 10 Torr.

35. The CVD apparatus of Claim 30, wherein the alkaline earth compound is selected from the group consisting of $M(C_2H_{19}O_2)_2$, $M(C_5H_7O_2)_2$, $M(C_5H_5F_3O_2)_2$, and $M(C_5H_5)_2$, wherein M represents one of magnesium beryllium, calcium, strontium, and barium.